

Algebra I EOC Practice #6

SPI 3102.1.6: Determine and interpret slope in multiple contexts including rate of change in real-world problems.

1. Find the slope of the line that passes through $(-6, 1)$ and $(4, -3)$.

- A. $\frac{5}{2}$
- B. $-\frac{5}{2}$
- C. $\frac{2}{5}$
- D. $-\frac{2}{5}$

2. Brandon works in a shoe store. His daily earnings, y , are represented by the equation $y = 20x + 75$ based on selling x pairs of shoes. What is represented by the slope in this equation?

- A. The total pairs of shoes Brandon sells each day
- B. The total amount of money Brandon earns each day
- C. The amount of money Brandon earns for each pair of shoes he sells
- D. The amount of money Brandon earns each day, even if he sells no shoes

3. The distance in miles, y , a rower in a canoe is from the dock after rowing x hours is represented by the equation $y = 5x + 11$. What does the slope represent in this situation?

- A. The speed of the current
- B. The speed of the rower/canoe
- C. The distance the rower is from the dock when $x = 0$
- D. The average speed of the oar as it passes through the water

4. What is the slope of the line $3x - 7y = 11$?

- A. $-\frac{3}{7}$
- B. $\frac{3}{7}$
- C. 3
- D. -3

5. In 1991, the federal minimum wage rate was \$4.25 per hour. In 1997, it was increased to \$5.15. Find the annual rate of change in the federal minimum wage rate from 1991 to 1997.

- A. \$0.15 per year
- B. \$0.18 per year
- C. \$0.55 per year
- D. \$0.90 per year

6. The table below shows the amount spent on food and drink at U.S. restaurants in recent years. Find the rate of change for 1980-1990.

Year	Food & Drink Sales (in billions)
1980	\$120
1990	\$239
2000	\$376

- A. 13.7 billion per year
- B. 12.8 billion per year
- C. 10 billion per year
- D. 11.9 billion per year